In lieu of reading papers, some people prefer a more visually oriented resource. This is a living list of resources that can be helpful. These are resources that aren’t included in the syllabus or other materials. If you have resources you’d like to suggest, please post to Ed Discussion and the instructors will add them to the list.

\*Thanks to Kineret for the Linear Algebra references and suggesting the list

# Linear Algebra

* [For the visual learner](https://www.3blue1brown.com/topics/linear-algebra) - 3Blue1Brown
* [For the mathematician](https://www.youtube.com/playlist?list=PL49CF3715CB9EF31D) - Gilbert Strang - the OG
* [For those in between](https://www.youtube.com/watch?v=k0zKoTvngUY) - Imperial College London

# Information Theory

* [Visual Information Theory (Colah Blog post)](https://colah.github.io/posts/2015-09-Visual-Information/)

# Neural Nets

* [Intro to Neural Nets](https://cs231n.github.io/neural-networks-1/) - Stanford cs231
* [Initialization, normalization, and regularization](https://cs231n.github.io/neural-networks-2/) - Stanford cs231
* [Learning and Optimization](https://cs231n.github.io/neural-networks-3/) - Stanford cs231

# Natural Language Processing

* [Jay Alammar’s Blog and videos](https://jalammar.github.io/)
* Chris McCormick’s [Blog](https://mccormickml.com/) and [YouTube videos](https://www.youtube.com/c/ChrisMcCormickAI/videos)

# ACL Conference paper presentations

* Some ACL conference paper presentations include a link to a video of one of the authors presenting. See [here](https://aclanthology.org/2020.acl-main.463/) at the bottom of the page for an example VIDEO link.

# Convolutional Neural Nets

* [Convolutional Neural Nets Cheat Sheet By Afshine Amidi and Shervine Amidi](https://stanford.edu/~shervine/teaching/cs-230/cheatsheet-convolutional-neural-networks)  - Stanford cs230
* [Convolutional Neural Nets (a deeper dive)](https://cs231n.github.io/convolutional-networks/) - Stanford cs231

# YouTube Videos

Yannic Kilcher has a good video walkthrough of the [Attention is All You Need paper](https://www.youtube.com/watch?v=iDulhoQ2pro) which introduced transformers to the world. His channel also features a number of other interesting explanation videos relevant to NLP.

Andrej Karpathy has a great video on [creating GPT from scratch](https://www.youtube.com/watch?v=kCc8FmEb1nY).